

Access DB# 127881**SEARCH REQUEST FORM**

Scientific and Technical Information Center

Requester's Full Name: Dwayne Bost Examiner #: 68951 Date: 7/21/04  
 Art Unit: 2600 Phone Number 30 \_\_\_\_\_ Serial Number: 10668, 095  
 Mail Box Location: CPA 8137 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*  
 Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*


US 6,129,515

STAFF USE ONLY		Type of Search	Vendors and cost where applicable
Searcher: <u>KEJ</u>	NA Sequence (#) _____	STN _____	
Searcher Phone #: _____	AA Sequence (#) _____	<u>Dialog</u>	
Searcher Location: _____	Structure (#) _____	<u>Questel/Orbit</u>	
Date Searcher Picked Up: <u>7/25</u>	Bibliographic _____	Dr.Link _____	
Date Completed: _____	Litigation <u>X</u>	<u>Lexis/Nexis</u>	
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____	
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____	
Online Time: <u>25</u>	Other _____	Other (specify) _____	

Query/Command : prt max legalall

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1 / 1 PLUSPAT - ©QUESTEL-ORBIT - image

**PN** -  US6292515 B1 20010918 [US6292515]  
**TI** - (B1) Dual mode bit and gain loading circuit and process  
**PA** - (B1) INTEGRATED TELECOM EXPRESS INC (US)  
**PA0** - Integrated Telecom Express, Inc., San Jose CA [US]  
**IN** - (B1) CHEN CHUNTA (US); LIU MING-KANG (US); KAO CHIIHSIN (US)  
**AP** - US51057800 20000222 [2000US-0510578]  
**FD** - Cont. of US991810 19971216 [1997US-0991810]  
           Continuation of: US6084917  
**PR** - US51057800 20000222 [2000US-0510578]  
           US99181097 19971216 [1997US-0991810]  
**IC** - (B1) H04K-001/10  
**EC** - H04L-027/26M1P  
**PCL** - ORIGINAL (O) : 375260000; CROSS-REFERENCE (X) : 370231000  
           370468000 375225000 375240000  
**DT** - Corresponding document  
**CT** - US4535472; US4731816; US4756007; US4757495; US4802189; US4899384;  
           US4980897; US5023869; US5198818; US5231649; US5243629; US5282019;  
           US5305352; US5313467; US5321725; US5353280; US5400322; US5469502;  
           US5479447; US5515368; US5521906; US5600712; US5619492; US5623513;  
           US5644573; US5751796; US5790550; US5812599; US5822372; US5822374;  
           US5832387; US5852633; US5903608; US5982813; US6072779; US6122247;  
           US6130882; EP0905948; WO9857472; WO9916224; WO9930465  
           Rupert Baines, "ADSL Community Faces Line Code Challenge," Electronic  
           News, May 5, 1997, p. 48.  
  
           Pini Losowick, "VDSL Gains As Technology Barriers Fall," Electronics News,  
           May 5, 1997, p. 52.  
  
           Stefan Knight, "ADSL On Fast Track To Revolutionize Work World," Electronic  
           News, May 5, pp. 43 and 46.  
  
           Uwe Hering, "Market To Support Several Implementations of xDSL," Electronic  
           News, May 5, pp. 56 and 73.  
  
           Peter S. Chow, et al, "A Practical Discrete Transceiver Loading Algorithm for  
           Data Transmission over Spectrally Shaped Channel," IEEE Transactions on  
           Communications, vol. 43, No. 2/3/4, Feb./Mar./Apr., 1995, pp. 773-775.  
  
           Peter Kraniuskas, "A Plain Man's Guide to the FFT," IEEE Signal Processing  
           Magazine, Apr. 1994, pp. 24-35.  
  
           Antonio Ruiz et al. "Discrete Multiple Tone Modulation with Coset Coding for  
           the Spectrally Shaped Channel," IEEE Transactions on Communications, vol. 40,  
           No. 6, Jun. 1992, pp. 1012-1029.

John M. Cioffi, "A Multicarrier Primer," ANSI Contribution TIE 14/91-1578, Deerfield Beach, Florida, Nov. 1991.

Jacky S. Chow et al. "A Discrete Multitone Transceiver System for HDSL Applications," IEEE Journal on Selected Areas in Communications, vol. 9 No. 6, Aug. 1991, pp.895-908.


Peter S. Chow et al., "Performance Evaluation of a Multichannel Transceiver System for ADSL and VHDSL Services," IEEE Journal on Selected Areas in Communications, vol. 9, No. 6, Aug. 1991.

John A.C. Bingham, "Multicarrier Modulation for Data Transmission: An Idea Whose Time Has Come," IEEE Communications Magazine, vol. 28, No. 5, May 1990, pp. 5-14.

- STG** - (B1) U.S. Patent (no pre-grant pub.) after Jan. 2, 2001
- AB** - A circuit and method that optimizes and adapts the bit and energy configurations of data sub-channels in a multi-channel data transmission signal is disclosed. A high speed system can select either of a first or a second adaptation routine to handle changes in the bit and gain loadings of sub-channel carriers based on line disturbances or transmission change requests, based on which is most aptly suited to handle the particular change. In a preferred embodiment the resulting bit/energy loadings can be adjusted to be fully compliant with applicable Discrete Multi-Tone (DMT) implementations of Asymmetric Digital Subscriber Loop (ADSL) protocols.
- UP** - 2001-39


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*1 / 1 LGST - ©EPO*

- PN** -  US6292515 B1 20010918 [US6292515]
- AP** - US51057800 20000222 [2000US-0510578]
- ACT** - 20031202 US/RF-A  
REISSUE APPLICATION FILED  
EFFECTIVE DATE: 20030918
- 20040629 US/RF-A  
REISSUE APPLICATION FILED  
EFFECTIVE DATE: 20030918
- UP** - 2004-27

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*1 / 1 CRXX - ©CLAIMS/RRX*

- PN** -  6,292,515 A 20010918 [US6292515]
- PA** - Integrated Telecom Express
- ACT** - 20030716 REASSIGNED  
ASSIGNMENT OF ASSIGNORS INTEREST

Assignor: INTEGRATED TELECOM EXPRESS, INC. DATE SIGNED:  
06/23/2003

Assignee: REAL COMMUNICATIONS, INC. 1900 MCCARTHY BLVD.  
SUITE 412 MILPITAS CALIFORNIA 95035

Reel 014102/Frame 0983

Contact: FINNEGAN, HENDERSON, FARABOW, ET AL SANG HUI  
MICHAEL KIM 1300 I STREET, N.W. WASHINGTON, DC 20005-3315

20030716 REASSIGNED  
ASSIGNMENT OF ASSIGNORS INTEREST

Assignor: INTEGRATED TELECOM EXPRESS, INC., DATE SIGNED:  
06/23/2003

Assignee: REAL COMMUNICATIONS, INC., 1900 MCCARTHY BLVD.,  
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Reel 014268/Frame 0583

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Assignor: INTEGRATED TELECOM EXPRESS, INC., DATE SIGNED:  
06/23/2003

Assignee: REAL COMMUNICATIONS, INC., 1900 MCCARTHY BLVD.,  
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Reel 014446/Frame 0810

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ASSIGNMENT OF ASSIGNORS INTEREST

Assignor: INTEGRATED TELECOM EXPRESS, INC., DATE SIGNED:  
06/23/2003

Assignee: REAL COMMUNICATIONS, INC., 1900 MCCARTHY BLVD.,  
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Reel 014446/Frame 0816

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20030716 REASSIGNED  
ASSIGNMENT OF ASSIGNORS INTEREST

Assignor: INTEGRATED TELECOM EXPRESS, INC., DATE SIGNED:  
06/23/2003

Assignee: REAL COMMUNICATIONS, INC., 1900 MCCARTHY BLVD.,  
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Reel 014446/Frame 0822

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20030716 REASSIGNED  
ASSIGNMENT OF ASSIGNORS INTEREST

Assignor: INTEGRATED TELECOM EXPRESS, INC., DATE SIGNED:  
06/23/2003

Assignee: REAL COMMUNICATIONS, INC., 1900 MCCARTHY BLVD.,  
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Reel 014491/Frame 0095

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20030716 REASSIGNED  
ASSIGNMENT OF ASSIGNORS INTEREST

Assignor: INTEGRATED TELECOM EXPRESS, INC., DATE SIGNED:  
06/23/2003

Assignee: REAL COMMUNICATIONS, INC., 1900 MCCARTHY BLVD.,  
SUITE 412, MILPITAS, CALIFORNIA, 95035

Reel 014539/Frame 0689

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20030716 REASSIGNED  
ASSIGNMENT OF ASSIGNORS INTEREST

Assignor: INTEGRATED TELECOM EXPRESS, INC., DATE SIGNED:  
06/23/2003

Assignee: REAL COMMUNICATIONS, INC., 1900 MCCARTHY BLVD.,  
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Reel 014763/Frame 0484

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MICHAEL KIM, 1300 I STREET, N.W., WASHINGTON, D.C. 20005-3315

20030718 REASSIGNED  
ASSIGNMENT OF ASSIGNORS INTEREST

Assignor: INTEGRATED TELECON EXPRESS, INC., DATE SIGNED:  
06/23/2003

Assignee: REAL COMMUNICATIONS, INC., 1900 MCCARTHY BLVD.,  
SUITE 412, MILPITAS, CALIFORNIA, 95035

Reel 014567/Frame 0103

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20030905 REASSIGNED  
ASSIGNMENT OF ASSIGNORS INTEREST

Assignor: REAL COMMUNICATIONS, INC., DATE SIGNED: 09/02/2003

Assignee: REALTEK SEMICONDUCTOR CORPORATION, NO. 2,  
INDUSTRY E. RD. IX, SCIENCE-BASED INDUSTRIAL PARK, HSINCHU,  
TAIWAN, R.O.C.

Reel 014462/Frame 0478

Contact: FINNEGAN, HENDERSON, FARABOW ET AL., SANG HUI  
MICHAEL KIM, 1300 I STREET, N.W., WASHINGTON, D.C. 20005-3315

20030918 REISSUE REQUESTED  
ISSUE DATE OF O.G.: 20031202  
REISSUE REQUEST NUMBER: 10/668095  
EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 2631

Reissue Patent Number:

20030918 REISSUE REQUESTED  
ISSUE DATE OF O.G.: 20040629  
REISSUE REQUEST NUMBER: 10/668095  
EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 2634

Reissue Patent Number:

Search statement 7

UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

6292515

<=9> Get Drawing Sheet 1 of 11

September 18, 2001

Dual mode bit and gain loading circuit and process

REISSUE: September 18, 2003 - Reissue Application filed Ex. Gp.: 2631; Re. S.N.  
10/668,095 (O.G. December 2, 2003)  
September 18, 2003 - Reissue Application filed Ex. Gp.: 2634; Re. S.N.  
10/668,095 (O.G. June 29, 2004)

APPL-NO: 510578 (09)

FILED-DATE: February 22, 2000

GRANTED-DATE: September 18, 2001

CORE TERMS: bit, margin, sub-channel, energy, target, channel, loading, fine,  
tuning, max ...

LEXIS-NEXIS  
Library: PATENT  
File: ALL



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For further explanation, press the H key (for HELP) and then the ENTER key.

6,292,515 OR 6292515

**LEXIS-NEXIS**  
**Library: PATENT**  
**File: JNLS**

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**LEXIS-NEXIS**  
**Library: NEWS**  
**File: CURNWS**

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S7 1 PN=US 6292515  
? t 7/39/1

7/39/1  
DIALOG(R) File 345: Inpadoc/Fam. & Legal Stat  
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16124178  
Basic Patent (No,Kind,Date): US 6084917 A 20000704 <No. of Patents: 003>  
Patent Family:

Patent No	Kind	Date	Applic No	Kind	Date
US 6084917	A	20000704	US 991810	A	19971216 (BASIC)
US 6222888	BA	20010424	US 510118	A	20000222
US 6292515	BA	20010918	US 510578	A	20000222

Priority Data (No,Kind,Date):

US 991810 A 19971216  
~~US 510118 A 20000222~~  
US 991810 A1 19971216  
US 510578 A 20000222

PATENT FAMILY:

UNITED STATES OF AMERICA (US)

Patent (No,Kind,Date): US 6084917 A 20000704  
CIRCUIT FOR CONFIGURING AND DYNAMICALLY ADAPTING DATA AND ENERGY  
PARAMETERS IN-A MULTI-CHANNEL COMMUNICATIONS SYSTEM (English)  
Patent Assignee: INTEGRATED TELECOM EXPRESS (US)  
Author (Inventor): KAO CHIIHSIN (US); CHEN CHUNTA (US); LIU  
MING-KANG (US)  
Priority (No,Kind,Date): US 991810 A 19971216  
Applic (No,Kind,Date): US 991810 A 19971216  
National Class: \* 375260000; 375225000; 375222000; 375219000  
IPC: \* H04K-001/10; H04L-027/28  
Derwent WPI Acc No: \* G 00-498157; G 00-498157  
Language of Document: English

Patent (No,Kind,Date): US 6222888 BA 20010424  
METHOD AND CIRCUIT FOR CONTROLLING SETUP OF MULTICHANNEL SYSTEM  
(English)

Patent Assignee: INTEGRATED TELECOM EXPRESS INC (US)  
Author (Inventor): KAO CHIIHSIN (US); CHEN CHUNTA (US); LIU  
MING-KANG (US)  
Priority (No,Kind,Date): US 510118 A 20000222; US 991810 A1  
19971216  
Applic (No,Kind,Date): US 510118 A 20000222  
Addnl Info: 6084917 Patented  
National Class: \* 375260000; 375222000; 375225000  
IPC: \* H04K-001/10  
Derwent WPI Acc No: \* G 00-498157  
Language of Document: English

Patent (No,Kind,Date): US 6292515 BA 20010918  
DUAL MODE BIT AND GAIN LOADING CIRCUIT AND PROCESS (English)  
Patent Assignee: INTEGRATED TELECOM EXPRESS INC (US)  
Author (Inventor): KAO CHIIHSIN (US); CHEN CHUNTA (US); LIU  
MING-KANG (US)  
Priority (No,Kind,Date): US 510578 A 20000222; US 991810 A1  
19971216  
Applic (No,Kind,Date): US 510578 A 20000222  
Addnl Info: 6084917 Patented  
~~National Class: \* 375260000; 375225000; 375240000; 370231000;~~  
370468000  
IPC: \* H04K-001/10

Derwent WPI Acc No: \* G 00-498157  
Language of Document: English

UNITED STATES OF AMERICA (US)

Legal Status (No, Type, Date, Code, Text):

US 6084917	P	19971216	US AE	APPLICATION DATA (PATENT)
				(APPL. DATA (PATENT))
		US 991810	A	19971216
US 6084917	P	20000704	US A	PATENT
US 6222888	P	19971216	US AA	PRIORITY (CONTINUATION)
		US 991810	A1	19971216
US 6222888	P	20000222	US AE	APPLICATION DATA (PATENT)
				(APPL. DATA (PATENT))
		US 510118	A	20000222
US 6222888	P	20010424	US BA	PATENT (NO PREVIOUS PRE-GRANT PUBLICATION)
US 6292515	P	19971216	US AA	PRIORITY (CONTINUATION)
		<del>US 991810</del>	<del>A1</del>	<del>19971216</del>
US 6292515	P	20000222	US AE	APPLICATION DATA (PATENT)
				(APPL. DATA (PATENT))
		US 510578	A	20000222
US 6292515	P	20010918	US BA	PATENT (NO PREVIOUS PRE-GRANT PUBLICATION)
US 6292515	P	20031202	US RF	REISSUE APPLICATION FILED (REISSUE APPL. FILED)
				DATE: 20030918
US 6292515	P	20040629	US RF	REISSUE APPLICATION FILED (REISSUE APPL. FILED)
				DATE: 20030918